

Docket No.: UC 0406 USCIP  
 Application No.: 10/774,285  
 Office Action Dated: May 15, 2006

PATENT

This listing of claims will replace all prior versions, and listings, of claims in the application.

**Listing of Claims:**

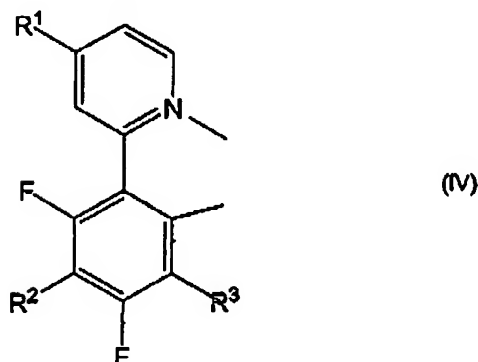
1. (Currently Amended) An active layer comprising at least one compound having a formula selected from Formula I, Formula II, and Formula III:



where:

in Formulae I, II, and III:

L<sup>1</sup> has Formula IV:



wherein:

R<sup>1</sup> = H, R<sup>4</sup>, OR<sup>4</sup>, N(R<sup>4</sup>)<sub>2</sub>

R<sup>2</sup> = H, C<sub>n</sub>F<sub>2n+1</sub>, C<sub>n</sub>F<sub>2n+1</sub>SO<sub>2</sub>, COOR<sup>4</sup>, CN

R<sup>3</sup> = H, C<sub>n</sub>F<sub>2n+1</sub>, C<sub>n</sub>F<sub>2n+1</sub>SO<sub>2</sub>, COOR<sup>4</sup>, CN,

R<sup>4</sup> is the same or different at each occurrence and is H, alkyl, aryl, or adjacent R<sup>4</sup> groups can join together to form a 5- or 6-membered ring, and

n is an integer from 1 through 20;

in Formula II:

L<sup>2</sup> is a ~~monoanionic bidentate ligand~~ phosphino alkoxide;

in Formula III:

L<sup>3</sup> is a monoanionic monodentate ligand; and

L<sup>4</sup> is a nonionic monodentate ligand.

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2. (Currently Amended) The active layer of Claim 1, wherein  $R^{12}R^2$  and  $R^{13}R^3$  are independently selected from H,  $CF_3$ ,  $C_2F_5$ ,  $n-C_3F_7$ ,  $i-C_3F_7$ ,  $C_4F_9$ ,  $CF_3SO_2$ ,  $COOR^{14}$ ,  $COOR^4$  and CN.

3. (Canceled)

4. (Currently Amended) The active layer of Claim 1, wherein the compound has Formula # III and  $L^3$  is a hydride.

5. (Currently Amended) The active layer of Claim 1, wherein  $L^1$  is selected from ligand 1-a through 1-y as shown in Table 5:

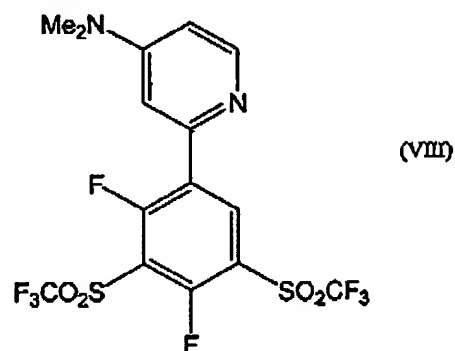
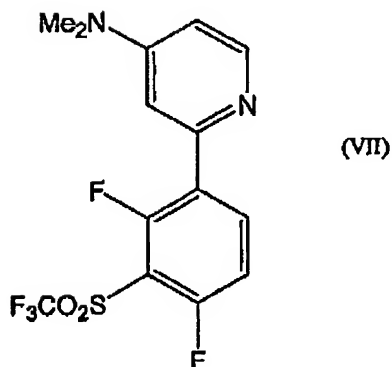
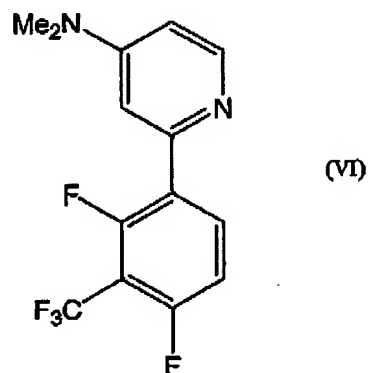
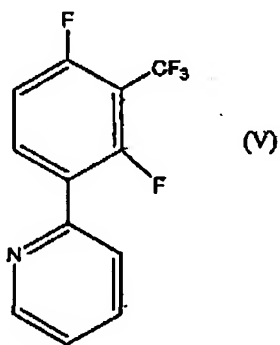
Ligand	$R^1$	$R^2$	$R^3$
1-a	H	H	H
1-b	H	$CF_3$	H
1-c	H	$COOMe$	H
1-d	H	CN	H
1-e	$CH_3$	H	H
1-f	$CH_3$	$CF_3$	H
1-g	$CH_3$	$COOMe$	H
1-h	$CH_3$	CN	H
1-i	$CH_3$	H	H
1-j	t-butyl	H	H
1-k	OMe	$CF_3$	H
1-l	OMe	$COOMe$	H
1-m	OMe	CN	H
1-n	OMe	$CF_3$	$CF_3$
1-o	$NMe_2$	H	H
1-p	$NMe_2$	$CF_3$	H
1-q	$NMe_2$	$COOMe$	H
1-r	$NMe_2$	CN	H
1-s	$NMe_2$	$CF_3SO_2$	H
1-t	$NMe_2$	$C_2F_5$	H

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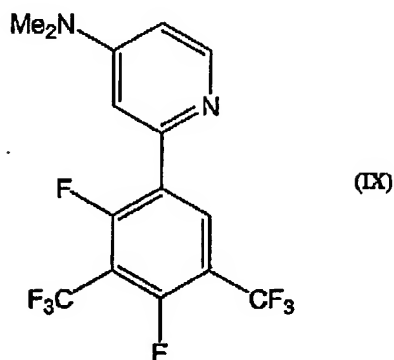
Ligand	R <sup>1</sup>	R <sup>2</sup>	R <sup>3</sup>
1-u	NMe <sub>2</sub>	CF(CF <sub>3</sub> ) <sub>2</sub>	H
1-v	NMe <sub>2</sub>	H	H
1-w	NPh <sub>2</sub>	CF <sub>3</sub>	H
1-x	NPh <sub>2</sub>	COOMe	H
1-y	NPh <sub>2</sub>	CN	H

6. (Currently Amended) The active layer of Claim 1, wherein L<sup>1</sup> is selected from Formula V, Formula VI, Formula VII, Formula VIII, and Formula IX:



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7. (Original) An organic electronic device comprising at least one active layer of Claim 1.

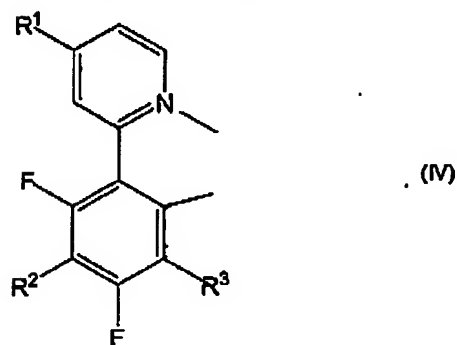
8. (Currently Amended) A compound having a formula selected from Formula I, Formula II, and Formula III:



where:

in Formulae I, II, and III:

$L^1$  has Formula IV:



wherein:

$R^1 = H, R^4, OR^4, N(R^4)_2$

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$R^2 = H, C_nF_{2n+1}, C_nF_{2n+1}SO_2, COOR^4, CN$

$R^3 = H, C_nF_{2n+1}, C_nF_{2n+1}SO_2, COOR^4, CN,$

$R^4$  is the same or different at each occurrence and is H, alkyl, aryl, or adjacent  $R^4$  groups can join together to form a 5- or 6-membered ring, and

n is an integer from 1 through 20;

in Formula II:

$L^2$  is a ~~monoanionic bidentate ligand~~ phosphino alkoxide;

in Formula III:

$L^3$  is a monoanionic monodentate ligand; and

$L^4$  is a nonionic monodentate ligand.

9. (Currently Amended) The compound of Claim 8, wherein  $L^1$  is selected from ligands 1-a through 1-y, ~~as shown in Table 1:~~

<u>Ligand</u>	<u>R<sup>1</sup></u>	<u>R<sup>2</sup></u>	<u>R<sup>3</sup></u>
<u>1-a</u>	<u>H</u>	<u>H</u>	<u>H</u>
<u>1-b</u>	<u>H</u>	<u>CF<sub>3</sub></u>	<u>H</u>
<u>1-c</u>	<u>H</u>	<u>COOMe</u>	<u>H</u>
<u>1-d</u>	<u>H</u>	<u>CN</u>	<u>H</u>
<u>1-e</u>	<u>CH<sub>3</sub></u>	<u>H</u>	<u>H</u>
<u>1-f</u>	<u>CH<sub>3</sub></u>	<u>CF<sub>3</sub></u>	<u>H</u>
<u>1-g</u>	<u>CH<sub>3</sub></u>	<u>COOMe</u>	<u>H</u>
<u>1-h</u>	<u>CH<sub>3</sub></u>	<u>CN</u>	<u>H</u>
<u>1-i</u>	<u>CH<sub>3</sub></u>	<u>H</u>	<u>H</u>
<u>1-j</u>	<u>t-butyl</u>	<u>H</u>	<u>H</u>
<u>1-k</u>	<u>OMe</u>	<u>CF<sub>3</sub></u>	<u>H</u>
<u>1-l</u>	<u>OMe</u>	<u>COOMe</u>	<u>H</u>
<u>1-m</u>	<u>OMe</u>	<u>CN</u>	<u>H</u>
<u>1-n</u>	<u>OMe</u>	<u>CF<sub>3</sub></u>	<u>CF<sub>3</sub></u>
<u>1-o</u>	<u>NMe<sub>2</sub></u>	<u>H</u>	<u>H</u>
<u>1-p</u>	<u>NMe<sub>2</sub></u>	<u>CF<sub>3</sub></u>	<u>H</u>
<u>1-q</u>	<u>NMe<sub>2</sub></u>	<u>COOMe</u>	<u>H</u>
<u>1-r</u>	<u>NMe<sub>2</sub></u>	<u>CN</u>	<u>H</u>
<u>1-s</u>	<u>NMe<sub>2</sub></u>	<u>CF<sub>3</sub>SO<sub>2</sub></u>	<u>H</u>

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Ligand	R <sup>1</sup>	R <sup>2</sup>	R <sup>3</sup>
<u>1-t</u>	<u>NMe<sub>2</sub></u>	<u>C<sub>2</sub>F<sub>5</sub></u>	H
<u>1-u</u>	<u>NMe<sub>2</sub></u>	<u>CF(CF<sub>3</sub>)<sub>2</sub></u>	<u>H</u>
<u>1-v</u>	<u>NMe<sub>2</sub></u>	<u>H</u>	<u>H</u>
<u>1-w</u>	<u>NPh<sub>2</sub></u>	<u>CF<sub>3</sub></u>	<u>H</u>
<u>1-x</u>	<u>NPh<sub>2</sub></u>	<u>COOMe</u>	<u>H</u>
<u>1-y</u>	<u>NPh<sub>2</sub></u>	<u>CN</u>	<u>H</u>

10. (Currently Amended) A compound of Claim 8, wherein R<sup>2</sup> and R<sup>3</sup> are independently selected from H, CF<sub>3</sub>, ~~C<sub>2</sub>F<sub>5</sub>~~, C<sub>2</sub>F<sub>5</sub>, ~~n-C<sub>3</sub>F<sub>7</sub>~~, n-C<sub>3</sub>F<sub>7</sub>, ~~i-C<sub>3</sub>F<sub>7</sub>~~, i-C<sub>3</sub>F<sub>7</sub>, ~~C<sub>4</sub>F<sub>9</sub>~~, C<sub>4</sub>F<sub>9</sub>, CF<sub>3</sub>SO<sub>2</sub>, ~~COOR<sup>4</sup>~~, COOR<sup>4</sup> and CN.

11. (Canceled)

12. (Original) A compound of Claim 8, wherein the compound has Formula III and L<sup>3</sup> is a hydride.

13. (Canceled)

14. (Original) An organic electronic device comprising a layer that comprises the compound of Claim 8.

15. (Original) An organic electronic device comprising a layer that comprises the compound of Claim 9.

16. (Original) An organic electronic device comprising a layer that comprises the compound of Claim 10.

17. (Canceled)

18. (Original) An organic electronic device comprising a layer that comprises the compound of Claim 12.

19. (Canceled)

20. (Original) An active layer of claim 1 further comprising a diluent.

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21. (Original) An active layer of claim 20 wherein the diluent further comprises a material selected from a polymer, a small molecule, and a mixture thereof.

22. (New) An active layer comprising at least one compound having Formula I



(I)

wherein  $\text{L}^1$  is selected from Formula VII and Formula VIII:

